

---

South Texas Coastal Zone  
Area Contingency Plan  
(STCZACP)

Risk Analysis: Area Planning Scenarios

Annex 1a  
May 2022

---

**Record of Changes**

<b>Change Number</b>	<b>Change Description</b>	<b>Section Number</b>	<b>Change Date</b>	<b>Name</b>
1	New Annex	All	30 July 2021	Todd Peterson, CGD 8
2	Updated formatting to align with the newly developed USCG National ACP Architecture model	All	May 2022	MSTCS Rocklage
3				
4				
5				
6				
7				
8				
9				
10				

# South Texas Coastal Zone Area Contingency Plan

## Table of Contents

1000 Introduction.....	1
1100 Average Most Probable Discharge .....	1
1200 Maximum Most Probable Discharge .....	1
1300 Worst Case Discharge .....	1
1400 Spill and Discharge History.....	2
1500 Risk Assessment .....	2
2000 Possible Sources of WCD.....	3
2100 Offshore Facilities/Pipelines.....	3
2200 Onshore Facilities/Pipelines/Marine Terminals.....	3
2300 Rail .....	3
2400 Tank Vessels Offshore.....	3
3000 Vulnerability Analysis .....	4
3100 Planning Assumptions .....	4
3101 Offshore Facilities.....	4
3102 Response Resources for WCD Offshore Platform Scenarios.....	4

## List of Tables

Table 1: Record of Significant Discharges and Releases.....	2
---	---

## 1000 Introduction

The ACP has been developed by the Sector Corpus Christi Captain of the Port, in consultation with the South Texas Coastal Zone Area Committee, and is based on an assessment of all potential sources of discharges in this area meeting the provisions of 40 CFR §300.210(c) of the NCP. The ACP is intended to be the fundamental element for building confidence that the plan addresses the necessary elements for planning a successful response within the area.

## 1100 Average Most Probable Discharge

The Coast Guard has determined Average Most Probable Discharge as the lesser of 50 barrels or 1% of a Worst Case Discharge for an offshore or onshore facility/pipeline/marine terminal, or the lesser of 50 barrels or 1% of cargo from a Tank Vessel during cargo transfer operations. This value was adopted for consistency with Facility Response Plans (FRPs) and Vessel Response Plans (VRPs).

## 1200 Maximum Most Probable Discharge

The Coast Guard has defined Maximum Most Probable Discharge as the lesser of 1,200 barrels or 10% of the volume of a Worst Case Discharge for an offshore facility or onshore facility/pipeline/marine terminal; 2,500 barrels of oil for a vessel with an oil cargo capacity equal to or greater than 25,000 barrels; or 10% of the vessel's oil cargo capacity for vessels with a capacity less than 25,000 barrels for Tank Vessels. These values were adopted for consistency with FRPs and VRPs.

## 1300 Worst Case Discharge

As defined by section 311(a) (24) of the Clean Water Act, the definition of a Worst Case Discharge in the case of a vessel is a discharge in adverse weather conditions of its entire cargo, and in the case of an offshore facility or onshore facility/pipeline/marine facility, the largest foreseeable discharge in adverse weather conditions. This definition has been adopted for consistency with FRPs and VRPs.

At a minimum, this annex addresses the following area planning elements:

1. Oil spill discharge and hazardous substance release history.
2. A risk assessment of potential sources of discharges within the area.
3. A description of planning assumptions describing a realistic assessment of the nature and size of possible threat and resources at risk.
4. Planning scenarios that provide for a Worst Case Discharge (WCD), a Maximum Most Probable Discharge (MMPD), and an Average Most Probable Discharge (AMPD) from a vessel, offshore facility, or onshore facility operating in the area as applicable.

## 1400 Spill and Discharge History

**Table 1: Record of Significant Discharges and Releases**

Date	Location	Source V = vessel OSF = offshore facility ONF = onshore facility OP = Pipeline	Product	Amount (bbls)	Responsible Party
2014	Matagorda Island Beach	V-barge	Oil	4,000 bbls	Kirby Inland Marine
2016	Port Aransas	OSF	Tar Ball	75 bbls	Welder Exploration
2017	Corpus Christi Anchorage Gulf of Mexico	Barge	Oil	2,000 bbls	Bouchard Transportation
2020	Port of Corpus Christi	OP/V Pipeline/Dredge	Oil	7,275 gal	Orion Marine

## 1500 Risk Assessment

A high probability exists for a WCD to occur anywhere in the South Texas Coastal Zone planning area given the high volume of deep-draft vessels (tank and non-tank vessels), the prevalence of oil and gas support vessels, offshore facilities (drilling rigs), oil and petrochemical terminals, and tug/tank barge composites. In addition, the unpredictable and sudden severe weather during transitional seasons and afternoon thunderstorms during the summer increase the risk.

## 2000 Possible Sources of WCD

The sections below describe the scenarios surrounding the source of a worst case discharge (WCD) scenario for offshore facilities, onshore facilities/pipelines/marine terminals, tank vessels and non-tank vessels.

### 2100 Offshore Facilities/Pipelines

See Table 4 of Section 3301 of the South Texas Coastal Zone Area Contingency Plan (STCZACP) for OCS facilities and pipeline WCD volumes. Also see Section 3303: Gulf of Mexico Offshore Technical Information for Area Contingency Planning in the ACP base plan for OCS WCD scenarios and modeling.

### 2200 Onshore Facilities/Pipelines/Marine Terminals

The WCD from an onshore facility, pipeline, or marine terminal will be contingent on the specific location, type of product, weather conditions and scenario in which the discharge occurs. The South Texas Coastal Zone planning area is home to numerous onshore petrochemical facilities. Additionally, these facilities utilize thousands of miles of pipelines to receive feed stocks and transport products to other facilities and terminals.

The Gulfmark Energy terminal in Victoria, TX has been identified as the WCD from an onshore facility. The facility has a potential for 245,700 barrels of crude oil. The terminal has a total of one million barrels of tank storage capacity, comprised of five tanks with capacities ranging from 15,000 to 360,000 barrels each. The Gulfmark Energy terminal can receive and redeliver crude oil and products via barge, ship, tank truck, tank rail car and pipeline. The facility can also store and/or blend crude oil or products for short or long-term periods.

### 2300 Rail

The WCD from rail would be from BNSF/Union Pacific in Nueces County, with 12,857 barrels (540,000 gallons) of oil products.

### 2400 Tank Vessels Offshore

The WCD from a tank vessel originating in the South Texas Coastal Zone planning area has been identified as the total loss of a Very Large Crude Carrier (VLCC). These types of vessels carry approximately 2.11 million barrels of Arabian heavy crude (API 27.67) as cargo on board.

The likely scenario involving the total loss of a VLCC would be the collision of a VLCC and another VLCC in the Gulfmex No.2 Lightering Zone (27-28 N, 095-31 W) resulting in the total loss of one of the VLCCs and all product on board.

## 3000 Vulnerability Analysis

The Sector Corpus Christi Captain of the Port zone includes many areas that are considered vulnerable for the effects of an oil spill. The potential effects of the spill could affect human health, property, and the environment. Information taken from real world events and spill trajectories has shown that a WCD from any source could have a devastating effect on fish, wildlife, and sensitive environments in the area. The analysis shows that the following items could be vulnerable from the effects of a major oil spill in the area:

1. Water intakes (drinking, cooling, or other)
2. Businesses
3. Residential areas
4. Wetlands and other sensitive environments
5. Fish and wildlife
6. Endangered flora and fauna
7. Recreational areas
8. Marine transportation system
9. Utilities
10. Other areas of economic importance (beaches, marinas).
11. Unique habitats or historical sites.

A WCD from an Ultra Large Crude Carrier or Very Large Crude Carrier tank vessel or an offshore/onshore facility would most likely impact these vulnerable and sensitive environments, which are identified and described in Section 9000: Environmentally and Economically Sensitive Environments, and in Section 10000: Fish and Wildlife and Sensitive Environments Plan (FWSEP) of the ACP base plan. The strategies and tactics used to protect, recover, and mitigate the effects of a WCD are addressed in Section 6400: Oil Spill Containment, Recovery and Cleanup of the ACP base plan.

## 3100 Planning Assumptions

The probability of a WCD occurring in the area is low. However, offshore facility operations, large crude carrier vessel transits, navigational hazards, and the operational activities associated transfer, handling, and storage of oil, along with the activities associated with offshore oil and gas exploration and production within the area provide high consequence situations for a WCD. Factor in natural disasters such as tropical storms and other severe weather events, the likelihood of a major spill occurring in the area increases significantly.

### 3101 Offshore Facilities

Please see Section 3303 of the ACP base plan for information related to oil and gas exploration and production.

### 3102 Response Resources for WCD Offshore Platform Scenarios

For a list of the most up to date offshore response resources please see the Marine Well Containment Company ([MWCC](#)) or the [HWCCG](#) websites; additional links to offshore resource may be found in Section 7000 of the ACP base plan. Additionally, Annex 2 is a comprehensive list of available agencies and expert resources in the Texas area.